September 18, 2003

EPA Docket Center
Environmental Protection Agency
1200 Pennsylvania Ave., NW, Mailcode 5305T
Washington, DC 20460

Re: Agency Information Collection Activities; Submission of EPA ICR No. 1381.07
RCRA-2003-0008; FRL-7545-8
Federal Register: August 19, 2003 (Volume 68, Number 160)
Recordkeeping and Reporting for 40 CFR Part 258–Municipal Solid Waste Landfills
COMMENTS BY GRASSROOTS RECYCLING NETWORK

Dear Madam/Sir:

Please accept the following written comments by the Grassroots Recycling Network "GRRN") in the above matter concerning reporting requirements by owners or operators of municipal solid waste (MSW) landfills under 40 CFR §258.29.

We oppose the information collection requests as proposed because they are woefully inadequate. For three reasons, they are too limited to protect the public health and welfare, as required by the enabling statute under which they were promulgated, the Resource Conservation Recovery Act (RCRA), and, in particular, the Hazardous and Solid Waste Amendments of 1984 (HSWA), 42 U.S.C. §6901-§6992.

First, we believe the EPA must required that records be provided to the State agency in all cases. Under the proposed data collection procedures, the limited matters for which records must be retained are provided to the State agency only upon request by the agency. This has two significant deficiencies. For one thing, without first receiving information about the existence of possible safety problems, the State agencies will not have any mandated means to know to request the data in the first place. For another, because FOIA statutes typically do not apply to records of private entities, these records will not be accessible by the affected public under federal rule. To the contrary, this method prevents the public who live near landfills from learning of events of direct concern to them and to their children in the absence of state rules that fill in that void.

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Second, key safety related information, which may be included in the data that is retained on or near the site, is essential for a national lessons-learned data base and should also be provided to EPA in all cases, as well as to the State agency.

Third, as is documented below, because the current landfill regulations are fundamentally flawed, we believe that the records which must be maintained for regulators must, in addition to those matters presently encompassed in 40 CFR §258.29, also include key factors bearing on the safety of the dry tomb landfill designs. Examples of such items that ought to be provided to the State and to EPA include, but are not limited to:

- Any contamination levels over background found in the groundwater monitoring wells, any corrective measures taken, and the results of those measures.

- Any impairments identified in either the final cover in closed cells or in the bottom liner, and any corrective measures taken, and the results of those measures.

- Any clogged leachate collection lines or any failures in their overlying drainage bed, any corrective measures to address them, and the results of those measures.

- Analysis of the chemical composition of leachate when the analysis shows the presence of any listed hazardous substances.

- Times when any of the gas collection lines were throttled to less than 85% of their rated negative pressure.

- Any loss in efficiency of gas wells and their surrounding gravel pack over time, any corrective measures to address the problem, and the results of those measures.

The overarching consideration in evaluating what is essential vs. what is onerous data collection is that the so-called Subtitle D rules are a fatally flawed regulation. For EPA has acknowledged that even composite liners "will ultimately fail" in decades after the agency's post-closure care requirements have expired,[1] "and when it does, leachate will migrate out of the facility."[2] Yet, EPA recognizes, the duration of a landfill's hazardous loadings that require isolation may be "many thousands of years,"[3] long after the time when discharges will occur.

Most recently, the EPA Inspector General has stated that:

> "EPA officials have stated that based on current data and scientific prediction, the release of contaminants may eventually occur, even with the application of best available land disposal technology. There is concern that these barriers will merely postpone the

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1 53 FED. REG. 168, at pp. 33344-33345 (August 30, 1988).

2 46 FED. REG. 11128-11129 (February 5, 1981).

3 46 FED. REG. 28314-28328 (May 26, 1981).

inevitable release of contaminants until after the 30-year liability has expired. As previously stated, some sites contain materials which are highly resistant to decomposition or which remain toxic forever. There have been several studies to determine the expected life span of landfill liners, and opinions on this issue vary widely.

The bottom line is that not even the manufacturers claim that their liners will last forever.

> "Many liners are only warrantied for a period of 20 years, and landfill caps are only expected to last for 20 years. Leachate collection systems have a finite life, as drains clog, and pumping capacity declines with time. Some of the older systems, which will be the first sites to end their 30-year post-closure care period, were constructed without liners, double liner protections, or leachate collection systems that are required under today's regulations. Potential failures at landfills include:
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> • leachate collection systems clogging,
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> • leaks/ pinholes/ seams/ stress cracking/ brittle fractures/ deterioration/ chemicals passing through liners,
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> • erosion of the cap by natural weathering, vegetation roots penetrating cover, burrowing by soil-dwelling mammals, cave-ins by settling of wastes,
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> • seismic and general instability of the landfill, and
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> • rainfall creating more leachate that migrates into groundwater (bathtub effect).
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> "In our sample, we found several examples of barriers failing during the first 30 years."[4]

Similar statements have been made by numerous professionals in the field. The head of the organization of public sector landfill operators, and former EPA official responsible for drafting the Subtitle D rules culminating in 1991, said:

> "The problem with the dry-tomb approach to landfill design is that it leaves the waste in an active state for a very long period of time. If in the future there is a breach in the cap or a break in the liner and liquids enter the landfill, degradation would start and leachate and gas would be generated. Therefore, dry-tomb landfills need to be monitored and maintained for very long periods of time (some say perpetually), and someone needs to be responsible for stepping in and taking corrective action when a problem is detected. The federal Subtitle D rules require only 30 years of post-closure monitoring by the landfill operator, however, and do not require the operator to set aside funds for future corrective action. Given the many difficulties of ensuring and funding perpetual care by the landfill operator, the responsibility of responding to long-term problems at dry-tomb

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4Office of the Inspector General, *RCRA Financial Assurance for Closure and Post-Closure* (2001-P-007) (March 30, 2001), at pp. 31-32.

landfills will fall on future generations, and the funding requirements could quite likely fall on state and local governments."[5]

A leading environmental scientist in the industry said –

> "...The dry containment method of operating a landfill has been described as long-term storage of waste rather than waste treatment or waste disposal, and does have some significant drawbacks. There will always be pockets of moisture within waste, and it is generally accepted that all lining and capping systems will eventually leak so rain and/or groundwater will eventually enter the site. Thus, the decomposition of the organic fraction of the waste will eventually occur, with resulting emissions of landfill gas and leachate. Since pipes and pumps buried within the waste eventually clog up and fail, there will be less chance of collecting and treating these emissions if they occur in the distant future."[6]

Or from one of the premier landfill engineers --

> "The containment provided by these landfills offers environmental protection initially; however, at some point beyond the 30-year [postclosure] period, there may be partial failure(s) of the containment lining system (underlying and overlying the waste). The primary environmental issue associated with partial containment system failure and moisture infiltration is the potential associated increase in gas and leachate production and the resulting impact of uncontrolled leachate and/or landfill gas releases to the environment. The nature and magnitude of the releases exiting the

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5John Skinner, "Composting and Bioreactors," *MSW Management* (July/August 2001), at p. 16.

6Peter White, et. al., *Integrated Solid Waste Management: A Lifecycle Inventory* (Aspen Pub. 1999), at p. 275.

And from another landfill engineer–

> "The driving force behind the use of reactive landfill technologies arises from market concerns and community expectations that conventional landfills are no longer practical and profitable as a means of disposal for MSW."[7]

The conclusions of EPA's own engineering staff, those who crafted the original rule in the agency, and the overwhelming weight of professional opinion within the landfill industry itself demonstrate that the current regulations are completely inadequate to protect public health. This is critical here because the statutory charge for rules adopted under HSWA is that, "at a minimum there is *no reasonable probability of adverse effects* on health or the environment from disposal of solid waste"[8] and there will be "*no migration* of hazardous constituents from the disposal unit ... for as long as the wastes remain hazardous."[9]

That is to say, the existing rules appear to violate the statute under which they were promulgated based upon the agency's own statements as well as the regulated industry. Rather than loosening regulatory oversight for a deeply flawed technology, the responsible position is that the entire regulatory structure needs to be fundamentally reformed such as Europe is in the process of doing.[10] While this is being done, aggressive efforts should be made to address the looming problems at the existing facilities licensed with flawed barrier systems because any remedy is likely to be limited to new sites. The first step in that process is to document what is happening in a national data base.

7Pat Sullivan, "Just What is a Bioreactor Landfill," MSW Management (July/August 2000). *See, also*, Lee, G.F. and Jones-Lee, A., "Assessing the Potential of Minimum Subtitle D Lined Landfills to Pollute: Alternative Landfilling Approaches," *Proc. Air and Waste Management Assoc.* 91st Annual Meeting, San Diego, CA. Lanier Hickman, "Ticking Time Bombs," *Municipal Solid Waste News* (SWANA) (March 1995). Abraham Michaels, "Solid Waste Forum on Landfills," *Public Works* (April 1995). D.P. Komilis, R.K. Ham, R. Stegmann, "The Effect of Landfill Design and Operation Practices on Waste Degradation Behavior: A Review," 17 *Waste Management and Research* 20-26. (1999).

8 42 U.S.C §6944(a). (emphasis added)

9 42 U.S.C. §6924(g)(5). (emphasis added)

10 The Council of Europe, *Council Directive 1999*/31/EC of 26 April 1999 on the Landfill of Waste: Annex I: GENERAL REQUIREMENTS FOR ALL CLASSES OF LANDFILLS. Europe is phasing out the land disposal of decomposable material that is responsible for keeping barrier based landfills latently biologically active for an indefinite period of time until the barriers deteriorate.

Yet, EPA does not appear to have made any systematic effort to proactively evaluate with field data what malfunctions are occurring at the 2,500 licensed MSW landfills and thousands more closed landfills across the U.S. That information is essential to develop remedies if the public is to be protected from toxic chemicals in the water they drink and in the air they breath, as is mandated by Congress.

Moreover, the current policy of regulatory laissez-faire would only repeat the earlier decision in 1991 to leave non-conforming landfills to the vagaries of Superfund where they will undoubtedly fester for years awaiting haphazard remediation, instead of taking constructive actions today to prevent that from happening. To wait to clean up until after the fact will incur costs that are ultimately magnitudes greater than preventive actions taken today.

Not only is such a hands-off policy as this limited data collection process, which leaves everything to CERCLA, costly in an economic sense once the long term consequences are factored into the equation, but it is politically imprudent as well. For the way in which Superfund is structured, in the coming decades almost all of those costs will likely fall on the Fortune 500 companies as potentially responsible parties, because the small and mid sized companies, which had also been involved, will no longer be in existence when cleanup efforts are organized, and households are largely exempt. Those major corporations, which only bear responsibility for a part of the problem, will not appreciate the indifference shown by EPA to their interests in its fitful attempt to protect the interests of the large waste disposal companies, who are, actually, an infinitesimally small part of the national economy.

We trust that new leadership in EPA will not want to foster a misimpression that it is hostile to its Congressional mandates to protect public health and welfare, and will act on these comments so that sound science and regulatory procedures can be restored to landfill policy. We ask EPA to amend the proposed data collection protocol to increase oversight and recordkeeping of MSW landfills, while researching alternatives to landfilling, especially of the biodegradable organic fraction that has such a significant impact present vectors for health impacts and on global warming.

Very truly yours,

David E. Wood
Executive Director